RAPIDLY SOLUBLE FLAVORED INSTANT COFFEE PRODUCT

FIELD

The present invention relates to instant coffee. More specifically, the present invention relates to a rapidly soluble flavored instant coffee product.

BACKGROUND

A relatively new entrain to the instant coffee market is flavored instant coffee. Typically a flavored instant coffee contains a mechanical mixture of instant coffee particles, creamer base, sweetener base, and flavorings. Unfortunately, the rate of solubility of these individual components differs, such that the desired ratios of the components do not completely dissolve. For example, the creamer base typically comprises a fatty component and is therefore hydrophobic. As a result, the creamer tends to dissolve less completely or less rapidly as compared to the other components. This, in turn, leaves aesthetically unappealing clumps of undissolved instant coffee product floating on the top of the beverage or as sediment in the bottom of the drinking vessel. This hydrophobic property is also characteristic of other fatty materials, such as chocolate, whole milk solids, whole cream solids and flavor oils, frequently included in flavored instant coffee beverages. Other problems associated with known flavored instant coffee beverages include segregation of low and high density particles in the dry mix. Such segregation results in nonuniform ingredient composition between spoonfuls of dry product. This non-uniformity is particularly prevalent in products sweetened with an artificial sweetener.

While vigorous shaking and stirring of such an instant coffee solution may eventually result in a completely dissolved product, this is unsatisfactory for the consumer. The characterization of "instant" should connote ease of preparation, such as little to no stirring, yet result in a readily dissolved product.

Based on the foregoing, there is a need for an flavored instant coffee product that is readily and uniformly soluble. It is therefore an object of the present invention to provide an flavored instant coffee product that is more readily and uniformly soluble as compared to flavored instant coffee products wherein the creamer and sweetener components occur as individual particles in the dry product.

SUMMARY

The present invention relates to a flavored instant coffee product comprising a creamer base, a sweetener base, and a flavor base, wherein the creamer base is agglomerated to the sweetener base, and the flavor base is coated on the agglomerated creamer and sweetener bases, and wherein the flavor base comprises instant coffee and flavorings.

The present invention further relates to a process for making such a flavored instant coffee product.

DETAILED DESCRIPTION

The present invention answers the need for an flavored instant coffee product that is more readily and uniformly soluble as compared to flavored instant coffee products wherein the creamer and sweetener components occur as individual particles (i.e., non-agglomerated) in the dry product.

The following is a list of definitions for terms used herein.

"Agglomeration" refers to the preparation of relatively larger particles by combining a number of relatively smaller particles into a single unit. Processes for accomplishing agglomeration are more fully discussed below.

"Bulk density" refers to the overall density of a plurality of particles measured in the manner described on pp. 130–131 of COFFEE PROCESSING TECHNOLOGY, Avi Publishing Company, Westport, Conn., 1963, Vol. II.

"FICP" means flavored instant coffee product.

"Creamer base" refers to a creamer or creamers useful in the FICP and process of the present invention. Such creamers include, but are not limited to, non-dairy creamers, synthetic and imitation dairy products, nonfat and whole milk solids. Preferred creamers include, non-dairy creamers made from vegetable fats, sugar, emulsifier, carbohydrates, sodium caseinate, and buffers. The creamer base may further include thickening agents such as modified food starches and/or natural and synthetic gums such as xanthan, cellulose gel (Avicel TM), carrageenan and sodium carboxymethylcellulose. Additional creamers suitable for use in the FICP and process of the present invention include those synthetic and imitation dairy products disclosed in KIRK OTHMER ENCYCLOPEDIA OF CHEMICAL TECHNOLOGY, W. J. Harper, Willey Interscience, 3rd edition, Vol. 22, section entitled "Synthetic and Imitation Dairy Products", pp. 465–498, (1978). Preferably, the FICP of the present invention comprises from about 25% to about 55%, by weight of creamer; more preferably from about 30% to about 50%; more preferably still, from about 35% to about 45%.

"Sweetener base" refers to a sweetener or sweeteners useful for sweetening a beverage. Such sweeteners include natural and artificial sweeteners. Such natural sweeteners useful in the FICP and process of the present invention include, but are not limited to, sucrose, fructose, dextrose, maltose, lactose, or mixtures thereof. Such artificial sweeteners include, but are not limited to saccharin, cyclamates, acetosulfam K (Sunette TM), L-aspartyl-L-phenylalanine lower alkyl ester sweeteners (e.g. Aspartame TM); L-aspartyl-D-alanine amides disclosed in U.S. Pat. No. 4,411,925 to Brennan et al.; L-aspartyl-D-serine amides disclosed in U.S. Pat. No. 4,399,163 to Brennan et al.; L-aspartyl-L-1-hydroxymethylalkaneamide sweeteners disclosed in U.S. Pat. No. 4,338,346 to Brand; L-aspartyl-1-hydroxyethyalkaneamide sweeteners disclosed in U.S. Pat. No. 4,423,029 to Rizzi; and L-aspartyl-D-phenylglycine ester and amide sweeteners disclosed in European Patent Application 168,112 to J. M. Janusz, published Jan. 15, 1986; and the like and mixtures thereof. Preferably the artificial sweeteners are combined with a bulking agent. Examples of such bulking agents include, but are not limited to, maltodextrins and polydextrose. Preferably, the FICP of the present invention comprises from about 25% to about 75%, by weight of sweetener; more preferably from about 40% to about 60%; more preferably still, from about 45% to about 55%. Such ranges are directly applicable to natural sweeteners. With regard to artificial sweeteners, such ranges refer to the % of an artificial sweetener and bulking agent mix, having a similar sweetness level to natural sweeteners. More preferably, the FICP of the present invention comprise from about 0.1% to about 3% of an artificial sweetener